

**LPDES PERMIT NO. LA0002844; AI No. 25163****LPDES FACT SHEET and RATIONALE  
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA**

- I. COMPANY/FACILITY NAME:** House of Raeford Farms of Louisiana, LLC  
P.O. Box 707  
Arcadia, LA 71001
- II. ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313
- III. PREPARED BY:** Ronda Burtch  
Industrial Permits Section  
Water Permits Division  
Phone #: 225-219-3095  
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- DATE PREPARED:** September 8, 2009
- IV. PERMIT ACTION/STATUS:**
- A. Reason for Permit Action:**
- Proposed reissuance of an expired Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46\*.
- LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.
- 40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.2301.F, 4901, and 4903.
- B. LPDES permit:** LA0002844  
LPDES permit effective date: September 1, 2004  
LPDES permit expiration date: August 31, 2009  
EPA has not retained enforcement authority.
- C. Application received on January 30, 2009 and additional information received by e-mail on September 24, 2009.**
- V. FACILITY INFORMATION:**
- A. Location:** 3867 Second Street in Arcadia, Bienville Parish
- B. Applicant Activity:**
- House of Raeford Farms of Louisiana, LLC is an existing poultry processing plant. The operations at this facility consist of "first processing\*" only. The first processing consists of stunning, killing, bleedout, scalding, picking, de-heading, and then the birds are placed on a shackle for evisceration. All birds are inspected by the USDA and then packaged for consumers. No "further processing\*" or "rendering\*" is

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performed at this facility. The remains of the birds are sold to another facility for further processing and rendering.

House of Raeford Farms receives and kills approximately 650,000 birds per week. The average annual "live weight killed\*" at the facility is approximately 282,230,000 pounds per year. After first-processing of the birds, the remains are sold to another facility for further processing and rendering. House of Raeford Farms uses an average of 811,000 gallons of water per day at their facility. Normal processing hours are Monday - Friday, 16 hours a day for processing birds and an 8 hour shift for plant clean up. All chemicals are stored inside a chemical storage building, which is bermed.

### **\*DEFINITIONS**

First processing - slaughtering of poultry and producing whole, halved, quartered or smaller meat cuts.

Further processing - operations that utilize whole carcasses or cut-up meat or poultry products for the production of fresh or frozen products, and may include the following types of processing: cutting and deboning, cooking, seasoning, smoking, canning, grinding, chopping, dicing, forming, breading, breaking, trimming, skinning, tenderizing, marinating, curing, pickling, extruding and/or linking.

Rendering - operations, which utilize raw material (animal and poultry trimmings, bones, meat scraps, dead animals, feathers, and related usable by-products) to produce meat meal, tankage, animal fats or oils, grease, and tallow.

Live weight killed (LWK) - the total weight of animals slaughtered.

- C. Technology Basis: (40 CFR Chapter I, Subchapter N/Parts 401-402, and 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

#### Guideline

Meat and Poultry Products Point Source Category

#### Reference

40 CFR 432.110, Subpart K

#### Other sources of technology based limits:

LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and Best Professional Judgement

- D. Fee Rate -

1. Fee Rating Facility Type: Major
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 2015

- E. Continuous Facility Effluent Flow (Max 30-Day) - 0.973 MGD.

## **VI. RECEIVING WATERS:** local drainage, thence into an unnamed tributary, thence into Brinson Creek, thence into Black Lake

Information based on the following: LAC 33:IX Chapter 11; Recommendation(s) from the Engineering Section. Hardness and 15% TSS data come from random site number 2403 on Brinson Creek (upstream from the Stone Container discharge into Brinson Creek at Arcadia, Louisiana) listed in Hardness and TSS Data for All LDEQ Ambient Stations for the Period of Record as of March 1998, LeBlanc.

1. TSS (15%), mg/L: 34
2. Average Hardness, mg/L CaCO<sub>3</sub>: 62

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3. Critical Flow, cfs: 0.1
4. Mixing Zone Fraction: 1
5. Harmonic Mean Flow, cfs: 1.0
6. River Basin: Red River, Subsegment 100702
7. Designated Uses: primary contact recreation, secondary contact recreation, fish and wildlife propagation, agriculture, and outstanding natural resource waters.

- Per LAC33.IX.1111.A, the water use designation for Outstanding Natural Resource Waters shall apply only to those waterbodies specifically so designated in LAC 33.IX.1123, Table 3 and not to their tributaries or distributaries unless so specified.

## VII. OUTFALL INFORMATION:

### Sanitary Effluent

The sanitary wastewater from this facility is routed to the town of Arcadia for treatment.

### Stormwater Runoff

This facility has a Stormwater Pollution Prevention Plant (SWP3) in place, which addresses how they will manage contaminated (first-flush) and uncontaminated stormwater. During a rain event the facility will open two valves from the loading and shipping docks and two others for the remainder of the facility, which will allow the first-flush stormwater to flow into the lagoon and be treated with other wastewaters. The first-flush stormwater will be diverted to the lagoon for 45 minutes to an hour. At such time, if all contaminants (i.e. blood, feathers, etc.) have been washed into the lagoon, the facility will close these valves and open other valves, which will allow the uncontaminated stormwater to discharge through natural drainage without being treated.

First-flush stormwater shall be defined as the first one inch of precipitation to fall on the 8 acre facility (this includes the entire facility due to the difficulty of containing the feathers), which is equivalent to the first 217,234 gallons of runoff.

### Outfall 001

- A. **Type of wastewater** - treated process wastewater, clean-up area effluent, refrigeration condenser overflow, boiler blowdown, washwater from washing the trucks and chicken cages, and first-flush stormwater runoff
- B. **Location** - at the point of discharge from the final treatment (UV disinfection) at Latitude 32° 33' 28", Longitude 92° 56' 47", prior to mixing with other waters
- C. **Treatment** - wastewater flows by gravity from the processing plant to a storage lagoon, extra oxygen is supplied in a supplemental holding lagoon, a duplex lift station pumps into the aeration basin of the activated system. Mixed liquor flows via gravity to the final clarifier past the ultra-violet lights then to Outfall 001. Return sludge from the clarifier is pumped back into the aeration basin. The wasted sludge is pumped into the anaerobic lagoon.
- D. **Flow** - Continuous, (Max 30-Day) 0.973 MGD
- E. **Receiving waters** - local drainage, thence into an unnamed tributary, thence into Brinson Creek, thence into Black Lake
- F. **Basin and segment** - Red River Basin, Segment 100702

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**VIII. EXISTING EFFLUENT LIMITS:**

Effluent Characteristic	Monthly Avg	Daily Max	Monthly Avg	Daily Max	Frequency
	lbs/day	gals	mg/l	mg/l	
Flow (MGD)	Report	Report	---	---	Continuous
CBOD	65	100	13	20	1/week
TSS	150	225	---	---	1/week
Oil & Grease	---	---	10	15	1/week
Ammonia (as N)	20	40	4	8	1/week
Fecal Coliform (col/100 ml)	---	---	200	400	1/month
pH min/max values (s.u.)	---	---	6.0	9.0	1/week
TDS	---	---	Report	Report	1/quarter
Chlorides	---	---	Report	Report	1/quarter
Total Phosphorous	---	---	Report	Report	1/quarter
Dissolved Oxygen (DO)	---	---	---	4.0 (min)	1/week

  

Whole Effluent (Chronic) Toxicity Limit			Monthly Avg. Min	7-Day Min	Frequency
			Percent %	Percent %	
Whole Effluent Lethality (7-Day NOEC)	---	---	90%	90%	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Growth, Static Renewal, 7- Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOES, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter

**IV. PROPOSED CHANGES:**

1. For effluent limitation purposes, the max 30-day flow (0.973 MGD) for the last two years is being used. The max 30-day flow of 0.973 MGD was obtained from flow data submitted on DMRs to the Department.
2. Technology based concentration limits for TSS and Total Nitrogen and are being added to the permit.
3. Technology based concentration limits for Oil and Grease are replacing the previous Water Quality Based Limits (WQBLs).

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4. Based on a water quality screen that was performed, concentration limitations for TDS are being added to the permit. (See appendix B).
5. "Report" interim effluent limits for TDS are being given for the first three (3) years of the permit in order to give the facility time to meet the final effluent limits.
6. Based on a Water Quality Screen that was performed, the "Report" requirements for Chlorides have been removed (See appendix B).
7. The Total Phosphorus "Report" requirements have been removed from the permit since the subsegment is no longer impaired for phosphorus.
8. The dilution series and critical dilution for the biomonitoring has been changed based on the increased flow from the facility.
9. All mass loadings have been removed from the permit since the newly promulgated federal regulations (40 CFR 432.110, Subpart K) only require concentration limits.

### VIII. PERMIT LIMIT RATIONALE:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

#### A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

#### B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII. Regulations also require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48(b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I/40 CFR 122.44(i)].

House of Raeford Farms of Louisiana, LLC is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

#### Manufacturing Operation

Meat and Poultry Products Point Source Category

#### Guideline

40 CFR 432.110, Subpart K

1. Outfall 001 - treated process wastewater, clean-up area effluent, refrigeration condenser overflow, boiler blowdown, washwater from washing the trucks and chicken cages, and first-flush stormwater runoff (from the loading and shipping docks)

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**Interim Effluent Limits** - Interim limits begin the effective date of the permit and last three (3) years from the effective date of the permit.

Parameter	Mass, lbs/day (unless otherwise stated)		Concentration, mg/l (unless otherwise state)		Measurement Frequency
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow (MGD)	Report	Report	---	---	continuous
CBOD <sub>5</sub>	---	---	13	20	1/week
TSS	---	---	20	30	1/week
Oil & Grease	---	---	8	14	1/week
Ammonia (as N)	---	---	4	8	1/week
Fecal Coliform (col/100 ml)	---	---	200	400	1/month
pH (s.u.)	---	---	6.0 (min)	9.0 (max)	1/week
TDS	---	---	Report	Report	1/week
Dissolved Oxygen (DO)	---	---	---	4.0 (min)	1/week
Total Nitrogen	---	---	103	147	1/week
Whole Effluent (Chronic) Toxicity Limits			Monthly Avg. Min	7-Day Min	Frequency
			Percent %		
Whole Effluent Lethality (7-Day NOEC)	---	---	94%	94%	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7 -Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Growth, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOES, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter

s.u. Standard Units

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**Final Effluent Limits** – Final effluent limits begin three (3) years from the effective date of the permit and last through the expiration date of the permit.

Parameter	Mass, lbs/day (unless otherwise stated)		Concentration, mg/l (unless otherwise state)		Measurement Frequency
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow (MGD)	Report	Report	---	---	continuous
CBOD <sub>5</sub>	---	---	13	20	1/week
TSS	---	---	20	30	1/week
Oil & Grease	---	---	8	14	1/week
Ammonia (as N)	---	---	4	8	1/week
Fecal Coliform (col/100 ml)	---	---	200	400	1/month
pH (s.u.)	---	---	6.0 (min)	9.0 (max)	1/week
TDS	---	---	832	1,980	1/week
Dissolved Oxygen (DO)	---	---	---	4.0 (min)	1/wcek
Total Nitrogen	---	---	103	147	1/week
Whole Effluent (Chronic) Toxicity Limit			Monthly Avg. Min	7-Day Min	Frequency
			Percent %		
Whole Effluent Lethality (7-Day NOEC)	---	---	94%	94%	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7 –Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Growth, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOES, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u>	---	---	Report	Report	1/quarter
NOEC, Pass/Fail [0/1], Lethality Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, <u>Ceriodaphnia dubia</u>	---	---	Report	Report	1/quarter

s.u. Standard Units

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Final Federal Effluent Guidelines (Meat and Poultry Products Point Source Category, 40 CFR 432) for this type of industrial discharge were promulgated on September 8, 2004. Therefore, concentration limitations are based on 40 CFR 432.110, Subpart K. All mass loadings have been removed from the permit since the newly promulgated federal regulations (40 CFR 432.110, Subpart K) only require concentration limits. In addition, due to changes within the facility the revised limits in the permit are not considered to be anti-backsliding.

#### **Site-Specific BPJ Considerations**

LDEQ's implementation guidance, in consideration of anti-backsliding provisions of the Clean Water Act, specifies that if a pollutant is covered under both the existing permit and the Poultry First Processing ELGs, the more stringent of the two applies.

CBOD<sub>5</sub> – the monthly average and daily maximum concentration limits from the Poultry First Processing effluent guidelines are less stringent than the site specific BPJ monthly average and daily maximum limits established in the previously issued LPDES permit. Therefore, concentration limits for CBOD<sub>5</sub> of 13 mg/l monthly average and 20 mg/l daily maximum are retained from the previous state permit.

TSS – the previous state permit does not have concentration limits. Therefore the monthly average and daily maximum concentration limits from the Poultry First Processing effluent guidelines are being established in this permit.

Ammonia (as N) – the monthly average and daily maximum concentration limits from the Poultry First Processing effluent guidelines are the same as the previous state permit. Therefore, these limits are retained.

Oil & Grease – the site-specific BPJ monthly average and daily maximum limits from the previous state permit are less stringent than Poultry First Processing effluent guidelines. Therefore, oil & grease limitations will be based on the Poultry First Processing effluent guidelines.

Dissolved Oxygen – limits are not established in the Poultry First Processing effluent guidelines; therefore, these limits are retained from the previous state permit.

Total Nitrogen – the previous state permit does not have limits for Total Nitrogen. Therefore, the monthly average and daily maximum concentration limits from the Poultry First Processing effluent guidelines are being established in the permit.

Fecal Coliform – the daily maximum limitation of 400 col/100 mL from the Poultry First Processing effluent guidelines is the same as the previous state permit. Therefore, this limit is being retained. The 200 col/100 mL limit is not established in the Poultry First Processing effluent guidelines; therefore, this limit is retained from the previous state permit.

pH – limits are established in 40 CFR Part 432 – Meat and Poultry Products Point Source Category, and are also retained from the previous LPDES permit.

TDS – the previous permit had a "Report" requirement for monthly average and daily maximum concentration. These concentration limits were used for data gathering purposes. Although, the subsegment is no longer impaired for TDS, a water quality screen was performed to determine if water quality based limits for TDS would be needed. Using two years of DMR data submitted, a TDS average of 1,553 mg/l was calculated and used in the water quality screen to determine the monthly average and daily maximum concentration limits that would be required of this facility. The facility is being given a three (3) year compliance schedule to meet compliance with the new TDS limitations.



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Biomonitoring - the biomonitoring requirements are based on a recommendation in accordance with LDEQ/OES Permitting Guidance Document for Implementing Louisiana State Water Quality Standards, EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies, and BPJ of the reviewer.

### C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 7, 2009. Calculations, results, and documentation are given in Appendix B.

In accordance with 40 CFR § 122.44 (d)(1)/LAC 33:IX.2707.D.1, the existing (or potential) discharge (s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 7, 2009, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix B.

The following pollutant received water quality based effluent limits:

Pollutant
TDS

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 7, 2009. They are also listed in Part II of the permit.

#### **TMDL Waterbodies:**

Subsegment 100702, Black Lake Bayou - Webster-Bienville Parish Line to Black Lake (Scenic), is not listed on LDEQ's Final 2006 303(d) list as impaired. However, subsegment 100702 was previously listed as impaired for organic enrichment/low DO, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to the established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 100702:

*TMDLs for Dissolved Oxygen for Black Lake Bayou (100702), Black Lake and Clear Lake (100703), and Saline Bayou (100803)*

Per the TMDL, "No reductions in point source loads were needed to maintain the DO standard during either the summer or winter season. Therefore, no change in permit limits is required as a result of this TMDL."

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## D. WHOLE EFFLUENT TOXICITY LIMITS

### 1. General Comments

The provisions of this section apply to Outfall(s) 001

Whole effluent toxicity testing conducted by the permittee has shown potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body, at the appropriate instream critical dilution. Pursuant to LAC 33:IX.2707.D.1.c/40 CFR 122.44(d)(1)(v), this Office has determined that the discharge from this facility does have the reasonable potential to cause, or contribute to an instream excursion above the narrative criterion within the applicable State water quality standards, in violation of Section 101(a)(3) of the Clean Water Act. Furthermore, this Office has determined that chemical specific limitations alone are not sufficient to maintain the applicable numeric and narrative State water quality standards. The State has established a narrative water quality criteria which, in part, states that

"No substances shall be present in the waters of the state or the sediments underlying said waters in quantities that alone or in combination will be toxic to human, plant, or animal life or significantly increase health risks due to exposure to the substances or consumption of contaminated fish or other aquatic life." (Louisiana Surface Water Quality Standards, LAC Title 33, Part IX, Chapter 11, Section 1113.B.5.)

The following summarizes toxicity test failures submitted by the permittee during the current term of the permit:

#### TOXICITY TESTS

#### DATES CONDUCTED

Chronic static renewal 7-day survival  
and reproduction test using Ceriodaphnia dubia

See Appendix A

Chronic static renewal 7-day larval survival  
and growth test using fathead minnow  
(Pimephales promelas)

See Appendix A

### 2. Permit Action

#### a. Testing and Reporting Requirements

The draft permit establishes the following testing and reporting requirements:

#### TOXICITY TESTS

#### FREQUENCY

Chronic static renewal 7-day survival  
and reproduction test using Ceriodaphnia  
dubia [Method 1002.0]

1/quarter

Chronic static renewal 7-day larval survival  
and growth test using fathead minnow  
(Pimephales promelas) [Method 1000.0]

1/quarter

The draft permit additionally requires the reporting of the coefficient of variation (larger of the low flow and control dilutions) for each test species.

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Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001, March 1989." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to provide data representative of the facility's discharge in accordance with regulations listed at LAC 33:IX.2715/40 CFR 122.48 and to assure compliance with permit limitations following regulations listed at LAC 33:IX.2707.1.1/40 CFR 122.44(i)(1).

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit.

b. Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 30%, 40%, 53%, 70%, and 94%. The low-flow effluent concentration (critical dilution) is defined as 94% effluent.

c. Effluent Limitations and/or Conditions

(1) Final Requirements

The draft permit establishes final whole effluent toxicity limitations and monitoring requirements beginning the effective date of this permit.

(2) Discussion

EPA issued an Administrative Order, effective December 30, 1991, due to toxicity of the effluent discharge based on toxicity results performed under the previous NPDES permit. This Order required the permittee to conduct a TRE. Upon completion of the TRE, the permittee concluded that ammonia was responsible for the effluent toxicity failures. WET limits were first incorporated in NPDES Permit LA0002844 (modified May 1, 1994) which established WET limits for both species (*Ceriodaphnia dubia* and *Pimephales promelas*) with an attainment date of March 1995. The reissued NPDES Permit, effective September 1, 1996, also incorporated WET limits, as did LPDES Permit LA0002844, effective September 1, 2004. After review of the permittee's TRE final report and performance, the Agency has concluded to incorporate WET limits.

Therefore, the LPDES permit is being reissued at this time, under the authority of Section 301(b)(1)(C) of the Clean Water Act, to incorporate effluent limits for whole effluent toxicity.

**IX. COMPLIANCE HISTORY/DMR REVIEW:**

A review of the files for the period of September 1, 2007 through August 31, 2009, revealed the following compliance history:

**Inspections:**

**September 15, 2008 (EDMS Document Number 38349786)**

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**April 9, 2008** (EDMS Document Number 43031327)

**Enforcement Actions**

**February 15, 2008** - Amended Consolidated Compliance Order and Notice of Potential Penalty, Enforcement tracking number WE-CN-06-0225A (EDMS Document Number 36827420)

**August 19, 2009** - Amended Consolidated Compliance Order and Notice of Potential Penalty, Enforcement tracking number WE-CN-06-0225B (EDMS Document Number 42921852)

**Warning Letters**

January 10, 2008 – Enforcement Tracking Number WE-L-07-0595 (EDMS Document Number 36539653)

**DMR Review:** A review of the Discharge Monitoring Reports (DMRs) for the period of September 1, 2007 through August 31, 2009, revealed the following violations:

<b>Date</b>	<b>Parameter</b>	<b>Reported Value</b>	<b>Permit Limit</b>
October 2007	TSS, Daily Loading	389 lbs/day	225 lbs/day
December 2007	CBOD <sub>5</sub> , Daily Loading	106.4 lbs/day	100 lbs/day
January 2008	TSS, Monthly Loading	167.6 lbs/day	150 lbs/day
	TSS, Daily Loading	297.7 lbs/day	225 lbs/day
	Fecal Coliform, Monthly Avg.	350 col/100 ml	200 col/100 ml
February 2008	Ammonia, Monthly Loading	22.3 lbs/day	20 lbs/day
	Ammonia, Daily Loading	48.9 lbs/day	40 lbs/day
	Fecal Coliform, Monthly Avg.	1,254 col/100 ml	200 col/100 ml
	Fecal Coliform, Daily Max.	1,254 col/100 ml	400 col/100 ml
March 2008	TSS, Daily Loading	242.9 lbs/day	225 lbs/day
	Fecal Coliform, Daily Max.	616 col/100 ml	400 col/100 ml
	CBOD <sub>5</sub> , Daily Loading	136.5 lbs/day	100 lbs/day
April 2008	TSS, Monthly Loading	154.3 lbs/day	150 lbs/day
	TSS, Daily Loading	270 lbs/day	225 lbs/day
June 2008	TSS, Monthly Loading	182.8 lbs/day	150 lbs/day
	TSS, Daily Loading	354.9 lbs/day	225 lbs/day
December 2008	Ammonia, Monthly Loading	93 lbs/day	20 lbs/day
	Ammonia, Daily Loading	420.1 lbs/day	40 lb/day
	Ammonia, Monthly Average	16.6 mg/l	4 mg/l
	Ammonia, Daily Max.	74.3 mg/l	8 mg/l
January 2009	TSS, Monthly Loading	161.2 lbs/day	150 lbs/day
	TSS, Daily Loading	370.1 lbs/day	225 lbs/day
February 2009	TSS, Daily Loading	333 lb/day	225 lbs/day
	Ammonia, Monthly Loading	63.3 lbs/day	20 lbs/day
	Ammonia, Daily Loading	244.9 lbs/day	40 lbs/day
	Ammonia, Monthly Avg.	12.9 mg/l	4 mg/l
	Ammonia, Daily Max.	50.2 mg/l	8 mg/l
March 2009	Ammonia, Daily Loading	40.58 lbs/day	40 lbs/day
May 2009	TSS, Monthly Loading	185.2 lbs/day	150 lbs/day
	TSS, Daily Loading	283.4 lbs/day	225 lbs/day
June 2009	Ammonia, Monthly Loading	34.35 lbs/day	20 lbs/day
	Ammonia, Daily Loading	133.9 lbs/day	40 lbs/day
	Ammonia, Monthly Avg.	4.959 mg/l	4 mg/l
	Ammonia, Daily Max.	19.3 mg/l	8 mg/l

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- **This facility was referred to Enforcement on January 27, 2010, due to exceedances of the permit limitations.**

**X. "IT" QUESTIONS – APPLICANT'S RESPONSES:**

This applicant is not required to submit "IT" Questions in accordance with La. R.S. 30:2018(E.2).

**XI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 100702 of the Red River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

**XII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

**XIII. TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

**XIV. VARIANCES:**

No requests for variances have been received by this Office.

**XV. PUBLIC NOTICES:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List